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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,977	05/21/2007	Gerhard Huber	HUBER4	3734

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EXAMINER	
MULLINS, BURTON S	

ART UNIT	PAPER NUMBER
2834	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/579,977	HUBER ET AL.	
	Examiner	Art Unit	
	BURTON MULLINS	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) *5-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☒ Claim(s) *5-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 18 June 2007 has been considered by the examiner.

Specification

3. The disclosure is objected to because of the following informalities: On p.1 reference to specific claim 1 should be deleted since claim content and numbering may change during prosecution. Appropriate correction is required.

Claim Objections

4. Claims 1, 3 and 5-8 are objected to because of the following informalities: Claim 1 recitation "…ambient space that is surrounded radially outward, through a primary air gap…" is awkward and redundant in that the so-described "ambient space" is the "primary air gap". Appropriate correction is required.

In claim 3, recitation "…is different by 2" is not idiomatic and should be --differs by 2--.

Claims 5-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from a multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-8 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear what the output of the "transmission" is since the coaxial field concentrator is "stationary" and the stator is, by definition, also stationary. The specification indicates that either one can function as the output (specification p.8:9-15); however, the claim is indefinite as to which one. For purposes of examination, it will be assumed that the stator is stationary and the coaxial field concentrator rotates as the output (specification p.8:9-11). In other words, in claim 1, line 5, "stationary" is taken to mean –rotating--. This is consistent with the EPO's replacement in claim 1, line 6, of "feststehende" (stationary) with "rotierende" (rotating). See PCT 409, p.6, dated 27 January 2006.

In claim 2, recitation "pole shoes of the input rotor" lacks antecedent basis. The only "pole shoes" recited belong to the concentrator, i.e., the output.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rodenhuis (EP 1 154 551) in view of Schulze et al. (US 5,675,203). Rodenhuis teaches a continuously variable magnetodynamic transmission (i.e., gear) comprising an input rotor 12 driven by a power source and provided with "magnets" (i.e., electromagnets in the form of windings 16 and poles) that are evenly distributed along its circumference, said input rotor 12 producing during its rotation a multi-polar magnetic field revolving with it in the ambient space that is surrounded radially outward, through a primary air gap (not numbered, Fig.1), by a coaxial field concentrator ('interrotor') 7 forming rotating, magnetically conductive pole shoes (bars) 9, said coaxial field concentrator 7 being surrounded, separated by a secondary air gap (not numbered, Fig.1), by a coaxial stator 2 whose grooves (slots) 4 carry windings 5/6.

Rodenhuis teaches inverters 5a/6a which, though capable of "sequentially short-circuiting" windings 16, are not explicitly disclosed as performing this function.

Schulze teaches a continuously variable magnetodynamic transmission (c.2:10-21) comprising an input rotor 2 driven by a power source and provided with magnets 9 that are evenly distributed along its circumference (Figs.1&2). The rotor is separated by an air gap from a coaxial stator 10 whose grooves carry windings 11 that are sequentially short-circuitable by

switches 18 (c.2:55-64; c.4:26-29; Fig.2). The short-circuitable windings provide infinite variable control of the transmission (c.1:65-c.2:21).

It would have been obvious to modify Rodenhuis and short-circuit the stator windings as in Schulze to provide infinite variable control of the transmission.

8. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodenhuis and Schulze, further in view of Cibie (US 4,532,447). Rodenhuis and Schulze do not teach that the number of poles of the input rotor and output rotor is different by 2.

Cibie teaches a magnetic transmission comprising an input (central) rotor RM and an output (intermediate) rotor RT (Fig.1), the number of poles of the input rotor RM being p= 6 to 10 pole pairs, i.e., 12-20 poles, (c.1:54-55) and the number of poles of the output rotor being q pairs of notches, q = a multiple of the number of poles, i.e., 3 x 2 x p (c.1:55-57). While Cebe does not specifically teach applicant's pole numbers, choice of pole number p relates to current frequency which in turn relates to slippage (c.3:62-c.4:6). It would have been obvious as a matter of engineering design to choose the rotors to have a difference of two poles since this would have been known to affect design parameters such as current frequency and slippage.

Regarding claim 4, choice of the optimum number of poles would have been a matter of engineering design. In re Boesch, 617 F.2d 272, 205 USPG 215 (CCPA 1980).

Allowable Subject Matter

9. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not teach the claimed continuously

variable magnetodynamic transmission including, inter alia, windings of the stator (2) sequentially short-circuitable in groups, and the number of groups of windings that are switched together corresponds to the number of pole shoes of the input rotor (7).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BURTON MULLINS whose telephone number is (571)272-2029. The examiner can normally be reached on 9-5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Q.Leung can be reached on (571)272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BURTON MULLINS/

Primary Examiner, Art Unit 2834

bsm
26 June 2009